

## **Materials Design Analysis Reporting (MDAR) Checklist for Authors**

The MDAR framework establishes a minimum set of requirements in transparent reporting applicable to studies in the life sciences (see Statement of Task: [doi:10.31222/osf.io/9sm4x](https://doi.org/10.31222/osf.io/9sm4x)). The MDAR checklist is a tool for authors, editors and others seeking to adopt the MDAR framework for transparent reporting in manuscripts and other outputs. Please refer to the MDAR Elaboration Document for additional context for the MDAR framework.

## Materials

<b>Antibodies</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
Rabbit anti-GFP antibody, Abcam, catalogue ab290; Goat horseradish peroxidase (HRP)-conjugated anti-rabbit antibody, Abcam, catalogue ab205718; Mouse anti-HA antibody, Sigma, catalogue H9658; Rabbit horseradish peroxidase (HRP)-conjugated anti-mouse antibody (Sigma, catalogue A9044).	Supplementary Materials/Materials and Methods/Co-Immunoprecipitation (Co-IP); ChIP-seq and data analysis	
<b>Cell materials</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
<b>Cell lines:</b> Provide species information, strain. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID		n/a
<b>Primary cultures:</b> Provide species, strain, sex of origin, genetic modification status.		n/a
<b>Experimental animals</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
<b>Laboratory animals:</b> Provide species, strain, sex, age, genetic modification status. Provide accession number in repository <b>OR</b> supplier name, catalog number, clone number, <b>OR</b> RRID		n/a
<b>Animal observed in or captured from the field:</b> Provide species, sex and age where possible		n/a
<b>Model organisms:</b> Provide Accession number in repository (where relevant) <b>OR</b> RRID		n/a
<b>Plants and microbes</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
<b>Plants:</b> Arabidopsis thaliana Col-0 ecotype	Supplementary Materials/Materials and Methods/Plant materials and growth conditions	
<b>Microbes:</b> Escherichia coli DH5α Agrobacterium tumefaciens GV3101	Supplementary Materials/Materials and Methods/ Plasmid construction and plant transformation; Transactivation assay; BiFC;	
<b>Human research participants</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
Identify authority granting ethics approval (IRB or equivalent committee(s), provide reference number for approval.		n/a
Provide statement confirming informed consent obtained from study participants.		n/a
Report on age and sex for all study participants.		n/a

## Design

<b>Study protocol</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
For clinical trials, provide the trial registration number <b>OR</b> cite DOI in manuscript.		n/a
<b>Laboratory protocol</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
RNA fluorescence in situ hybridisation	DOI: 10.1104/PP.19.00980	
<b>Experimental study design (statistics details)</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
State whether and how the following have been done, <b>or</b> if they were not carried out.		
Sample size determination		n/a
Randomisation		n/a
Blinding		n/a
Inclusion/exclusion criteria		n/a
<b>Sample definition and in-laboratory</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
State number of times the experiment was replicated in laboratory	Yes. Supplementary Materials/Materials and Methods/Page 3, 4, 5, 6	
Define whether data describe technical or biological replicates	Yes. Figure legend (Figs. 2, 4, S4, S15)	
<b>Ethics</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
Studies involving human participants: State details of authority granting ethics approval (IRB or equivalent committee(s)), provide reference number for approval.		n/a
Studies involving experimental animals: State details of authority granting ethics approval (IRB or equivalent committee(s)), provide reference number for approval.		n/a
Studies involving specimen and field samples: State if relevant permits obtained, provide details of authority approving study; if none were required, explain why.		n/a
<b>Dual Use Research of Concern (DURC)</b>	<b>Yes (indicate where provided: page no/section/legend)</b>	<b>n/a</b>
If study is subject to dual use research of concern, state the authority granting approval and reference number for the		n/a

## Analysis

Attrition	Yes (indicate where provided: page	n/a
State if sample or data point from the analysis is excluded, and whether the criteria for exclusion were determined and specified in advance.		n/a
For ChIP-seq analysis, the genes that appear only one time in three replicates were excluded.	Supplementary Materials/Materials and Methods/ChIP-seq and data analysis	
Statistics	Yes (indicate where provided: page	n/a
Describe statistical tests used and justify choice of tests.	Yes. Figure legend (Figs. 1, 3, 4, S1, S3, S10, S13)	
Data Availability	Yes (indicate where provided: page	n/a
State whether newly created datasets are available, including protocols for access or restriction on access.	Yes. Main text/Data and materials availability	
If data are publicly available, provide accession number in repository or DOI or URL.	Gene Expression Omnibus, accession number: GSE144049	
If publicly available data are reused, provide accession number in repository or DOI or URL, where possible.	DOI: 10.1111/j.1365-313X.2004.02319.x	
Code Availability	Yes (indicate where provided: page	n/a
For all newly generated code and software essential for replicating the main findings of the study:		
R (version 3.5.2)	<a href="https://www.r-project.org">https://www.r-project.org</a>	
MorphoGraphX	<a href="https://www.mpipz.mpg.de/MorphoGraphX">https://www.mpipz.mpg.de/MorphoGraphX</a>	
Fiji – ImageJ software <a href="https://fiji.sc">https://fiji.sc</a>	<a href="https://fiji.sc">https://fiji.sc</a>	
FastQC	<a href="http://www.bioinformatics.babraham.ac.uk/projects/fastq">www.bioinformatics.babraham.ac.uk/projects/fastq</a>	
ShinyGO	<a href="http://bioinformatics.sdstate.edu/go/">http://bioinformatics.sdstate.edu/go/</a>	
Picard tools	<a href="https://github.com/broadinstitute/picard">https://github.com/broadinstitute/picard</a>	
MEME tool	<a href="http://meme-suite.org/tools/meme">http://meme-suite.org/tools/meme</a>	
PAVIS2	<a href="https://manticore.niehs.nih.gov/pavis2/">https://manticore.niehs.nih.gov/pavis2/</a>	

## Reporting

Adherence to community standards	Yes (indicate where provided: page no/section/legend)	n/a
MDAR framework recommends adoption of discipline-specific guidelines, established and endorsed through community initiatives. Journals have their own policy about requiring specific guidelines and recommendations to complement MDAR.		
State if relevant guidelines (eg., ICMJE, MIBBI, ARRIVE) have been followed, and whether a checklist (eg., CONSORT, PRISMA, ARRIVE) is provided with the manuscript.		n/a